

reflector (15) is an etched mirror.

23 10. (Amended) A tunable laser according to claim 6, characterized in that the fixed reflector (15) is on the front face of the active section (1).

11. (Amended) A tunable laser according to claim 1, characterized in that the rear face of the active section (1) is antireflection treated.

12. (Amended) A tunable laser according to claim 1, characterized in that the mobile reflector (20) is a mirror external to the laser cavity.

24 16. (Amended) A tunable laser according to claim 12, characterized in that the mobile reflector (20) is controlled by a micro-electro-mechanical (MEM) controller.

17. (Amended) A tunable laser according to claim 1, characterized in that the tunable section (2) is an air area.

18. (Amended) A tunable laser according to claim 1, characterized in that the tunable section (2) is a gas area.

19. (Amended) A method of fabricating a tunable edge-emitting semiconductor laser according to claim 1, characterized in that it includes the following steps:

- producing a laser die (10) including a substrate (8) and an active layer (11) consisting of a gain medium, the length  $L_1$  of the gain medium being from 5  $\mu\text{m}$  to 12  $\mu\text{m}$ ,
- producing a fixed etched mirror (15) on the front face of the laser die (10),
- mounting the laser die (10) on a base (50), and
- producing a mobile reflector (20) on the base (50) to the rear of the laser die (10).